

### ABSTRACT OF THE DISCLOSURE

Disclosed is a projection optical system having at least one lens, at least one concave mirror, and at least one diffractive optical element. In one preferred form of the invention, the projection optical system includes a first imaging optical system having the at least one lens and the at least one concave mirror, for imaging an intermediate image of an object, and a second imaging optical system having the at least one lens and at least one diffractive optical element, for projecting the intermediate image onto an image plane.

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